



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,901	10/01/2003	Bradley L. Grunden	1152-014A	8077

47888 7590 06/21/2007
HEDMAN & COSTIGAN P.C.
1185 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
----------	--------------

1771

MAIL DATE	DELIVERY MODE
-----------	---------------

06/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/676,901	Applicant(s) GRUNDEN ET AL.	
	Examiner Matthew D. Matzek	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 20-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. The amendment dated 4/12/2007 has been fully considered and entered into the Record. Claims 1, 4 and 5 have been amended and new claims 23 and 24 have been added. The amended and new claims contain no new matter. Claims 1-24 are currently pending with claims 20-22 withdrawn from prosecution at this time.
2. The 112, second paragraph rejection of claims 4 and 5 has been withdrawn due to amendment. The anticipation rejection of claims 1-4, 6, 7, and 13-16 has been withdrawn due to the new limitation of safely dissipating an applied charge to less than 200 volts when tested in accordance with ESD S4.2.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4, 6, 7, 13-16, 23 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Majumdar et al. (US 6,025,119) hereinafter "Majumdar".
 - a. Majumdar discloses an imaging element, which includes a support, an image-forming layer superposed on the support, and an electrically conductive layer superposed on the support (Abstract). The support layer of the applied article may comprise a wide variety of materials including paper (col. 6, lines 63-67). The protective overcoat layer, which is transparent, includes polyurethane (thermoset) binder (col. 3, lines 66-67). The transparency of the protective coating is necessitated by its use as a protective coating for an imaging element. The electrically conductive layer may be formed with conductive

polymers such as polypyrrole, polyaniline, thiophene (polyethylene dioxythiophene polystyrene sulfonated), and polyisothianaphene (col. 10, lines 23-36, col. 12, lines 31-36). It is preferred that the conductive polymers are dispersed in aqueous systems (col. 10, lines 35-37). The antistatic layer more preferably possesses an electrical resistivity of less than 10 log ohms/square ($<10^{10}$ ohms) (col. 6, lines 25-30). This limitation anticipates the instantly claimed point-to-point resistance range. Claim 16 is rejected as the weight of the electrically conductive polymer (component B) range between less than 1% and approximately 15 weight percent of the thermosetting polymer resin present in the structure (component C) (col. 11, lines 39-53).

b. Although Majumdar does not explicitly teach the claimed feature of safely dissipating an applied charge to less than 200 volts when tested in accordance with ESD S4.2, it is reasonable to presume that said property is inherent to Majumdar. Support for said presumption is found in the use of like materials (i.e. a cellulose-based substrate, a conductance-modifying component, and a thermosetting polymer resin). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of safely dissipating an applied charge to less than 200 volts when tested in accordance with ESD S4.2 would obviously have been present one the Majumdar product is provided. Note *In re Best*, 195 USPQ at 433, footnote (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

c. Claims 23 and 24 are rejected because for the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are,

“consisting essentially of” will be construed as equivalent to “comprising.” See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355.

Claim Rejections - 35 USC § 103

4. Claims 1-3, 5-8, 12, 17-19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannady, Jr. et al. (US 4,480,001) hereinafter “Cannady” in view of Ashlock et al. (US 4,500,669) hereinafter “Ashlock”.

a. Cannady teaches a static dissipating laminate comprising a multiple layers of fibrous material impregnated with resin and metal salt to provide an antistatic effect to the laminate (Abstract). Example E comprises a Kraft paper core that is impregnated with phenolic resin. Tables 1 and 2 show that the applied invention has the instantly claimed resistance. Claim 5 is met by the fact that the conductive metal salts are added to the article at levels of from about 0.15% to 10% by weight of the thermosetting resin (col. 4, lines 39-45). The static dissipating laminate may further comprise an overlay sheet and a decorative layer (col. 3, lines 13-26). The overlay sheet may comprise melamine-formaldehyde (col. 3, lines 13-17). The disclosure of Cannady fails to teach the size of the conductive material to be incorporated into the phenolic resin.

b. Ashlock teaches the creation of a transparent, abrasion resistant coating composition of water-insoluble dispersant metals, alloys or salts thereof (Abstract). The coating composition has improved elongation and static dissipating capabilities (col. 1, lines 40-44). The static dissipating particles should have a size of 10 nanometers or less and may be antimony tin oxide or metal salts (col. 2, lines 25-36).

- c. Since Cannady and Ashlock are from the same field of endeavor (i.e. static dissipative articles), the purpose disclosed by Ashlock would have been recognized in the pertinent art of Cannady.
- d. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Cannady with the static dissipating particles of Ashlock with the motivation of improving the static dissipating properties (col. 2, lines 35-36, Ashlock) of the laminate.
- e. Although Cannady and Ashlock do not explicitly teach the claimed feature of safely dissipating an applied charge to less than 200 volts when tested in accordance with ESD S4.2, it is reasonable to presume that said property is inherent to combined invention. Support for said presumption is found in the use of like materials (i.e. a cellulose-based substrate, a conductance-modifying component, and a thermosetting polymer resin). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of safely dissipating an applied charge to less than 200 volts when tested in accordance with ESD S4.2 would obviously have been present once the combined invention is provided. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80.
- f. Claims 23 and 24 are rejected because for the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are,

“consisting essentially of” will be construed as equivalent to “comprising.” See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355.

5. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannady, Jr. et al. (US 4,480,001) in view of Ashlock et al. (US 4,500,669) as applied to claim 1 above, and further in view of Lindsay et al. (US 4,208,696) hereinafter “Lindsay”. The disclosures of Cannady and Ashlock are silent as to the incorporation of an electrically conductive web into their respective static dissipative laminates.

a. Lindsay teaches an electrically conductive web for safely and quickly discharging static electricity. The web comprises a semi-conductive polymeric surface layer, which is in electrical contact with a conductive foraminous (scrim) layer. The composite structure may be bonded to a suitable supporting substrate (Abstract).

b. Since Cannady and Lindsay are from the same field of endeavor (i.e. static dissipative articles), the purpose disclosed by Lindsay would have been recognized in the pertinent art of Cannady.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have added a conductive scrim to the invention of Cannady. The structure of Cannady is the same as Lindsay (overlay/decorative=semi-conductive layer; core=support layer), except that Lindsay has the additional conductive scrim layer between the semi-conductive and support layers. One of ordinary skill would have been motivated to incorporate the conductive scrim into the article of Cannady by the desire to prevent build-up of static charge as well as the rapid and safe discharge of accumulated static electricity (col. 1, lines 55-57, Lindsay). Claim 11 is rejected as the scrim is

located between the overlay and core layers in the combined inventions. The overlay sheet is preferably a thin fibrous cellulosic sheet impregnated with a thermosetting resin (col. 3, lines 13-17) and the impregnating resin contains conductive metal salt (col. 4, lines 31-35). The disclosure of Lindsay only mentions the use of a conductive woven scrim, however it would have been obvious to one of ordinary skill in the art to have substituted a conductive nonwoven scrim or the woven scrim as it is well known that woven and nonwoven scrims are interchangeable.

Response to Arguments

6. Applicant's arguments filed 4/12/2007 have been fully considered but they are not persuasive.

7. Applicant's argue that the Majumdar compositions are distinct from those instantly claimed and as such would not meet ESD S4.2. Applicant continues by stating that only the electrically conductive layer of Majumdar provides an electrical resistivity of less than 10^{10} ohms and the entire article of Majumdar must be conductive to read on Applicant's invention. As Applicant has pointed out the invention of Majumdar possesses the claimed electrical resistivity and the conductive layer of the applied invention is part of the Majumdar article. Therefore, the structure possesses the claimed property. If Applicant would like to claim properties for a specific layer, then the claims should be amended to reflect such an embodiment.

8. Applicant has pointed out that Majumdar uses siliceous material, and has attempted to distinguish the instantly claimed article from that of the applied prior art in new claims 23 and 24. As addressed *supra*, for the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel

Art Unit: 1771

characteristics actually are, “consisting essentially of” will be construed as equivalent to “comprising.” See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355.

9. Applicant argues that Majumdar requires a relative humidity of from 50 to 5% in order for the electrical resistance to be less than 12-log ohms/square. Upon review of the Majumdar reference, the cited section states that an electrical resistance of less more preferably 10-log ohms/square occurs at a relative humidity of from 50 to 5%. The recited relative humidity is not required to acquire such a resistance, but is the humidity at which the test was conducted. This electrical resistance value, in combination with the teaching that antistatic layers containing electric conductors such as conjugated conducting polymers have electrical resistivities that are independent of relative humidity (col. 2, lines 30-45), leads one to understand that even though the resistance of Majumdar was measured at a given relative humidity, the applied invention's electrical resistivity would remain constant at relative humidities outside of the range of 50 to 5%.

10. Applicant argues that neither Cannady nor Ashlock teach the ability of their inventions to successfully and safely dissipate charges when tested in accordance with ESD S4.2. Examiner agrees that neither Cannady nor Ashlock provide for the now claimed dissipation according to ESD S4.2, however are both directed to anti-static, charge dissipating articles and their combined invention meets the instantly claimed article. Therefore, it is reasonable to presume such an article would meet the instantly claimed property.

11. Applicant argues that Ashlock provides for particles that are static dissipating particles that are much smaller than those of Applicant and as such it would not have been obvious to use

Art Unit: 1771

the larger sized particles of Applicant. "Nanophase" particles is the only size limitation for the static dissipating particles in the instant claims. Ashlock discloses this.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is 571.272.2423. The examiner can normally be reached on M-F, 9-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mdm

MDM



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700